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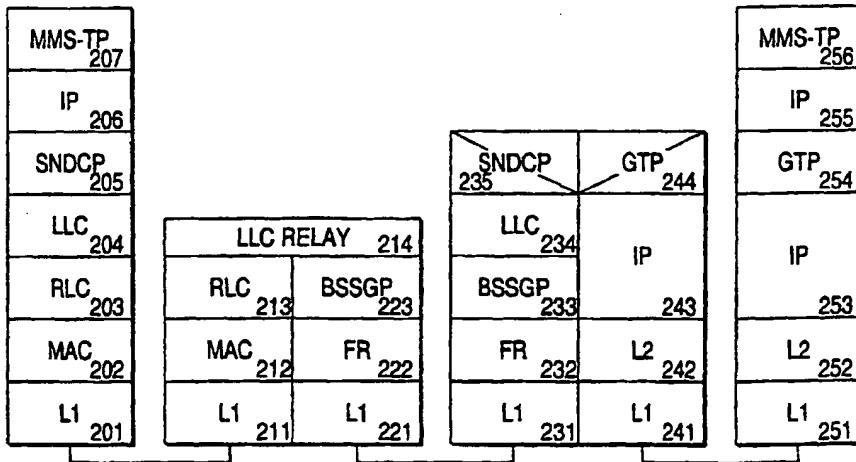
— With international search report.

[Continued on next page]

(54) Title: METHOD AND APPARATUS FOR THE TRANSMISSION OF INFORMATION



A3



(57) Abstract: A method is provided for transmitting multimedia-related information between a first device and a second device coupled to a packet-switched data transmission network. A first protocol stack (201, 202, 203, 204, 205, 206, 207) is defined for the first device and a second protocol stack (251, 252, 253, 254, 255, 256) is defined for the second device. The protocol stacks consist of layers and serve the arranging of the mutual exchange of information between the first device and the second device. An Internet Protocol layer (206, 255) is defined for the transmission of packetized data as a certain layer in the first protocol stack and a certain layer in the second protocol stack. A multimedia messaging transport protocol layer (207, 256) is also defined as a certain layer above the Internet Protocol layer (206, 255) in the first and second protocol stacks. Multimedia-related information is exchanged between the multimedia messaging transport protocol layer (207) in the first device and the multimedia messaging transport protocol layer (256) in the second device through the use of the Internet Protocol layer (206, 255) as well as other lower layers in the first and second protocol stacks.

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INTERNATIONAL SEARCH REPORT

International Application No
PCT/IB 00/00430

A. CLASSIFICATION OF SUBJECT MATTER	IPC 7	H04L29/06	H04Q7/22	H04Q7/24	H04Q7/32	H04L12/28
		H04L29/12				

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 H04L H04Q

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	BRASCHE G ET AL: "CONCEPTS, SERVICES, AND PROTOCOLS OF THE NEW GSM PHASE 2+ GEBERAKL PACKET RADIO SERVICE" IEEE COMMUNICATIONS MAGAZINE, US, IEEE SERVICE CENTER, PISCATAWAY, N.J., vol. 35, no. 8, 1 August 1997 (1997-08-01), pages 94-104, XP000704443 ISSN: 0163-6804 page 95, left-hand column, line 20 - line 38 page 96, left-hand column, line 29 - line 66 page 97, left-hand column, line 47 -page 98, right-hand column, line 40; figure 5	1,8,10
Y	page 95, left-hand column, line 20 - line 38	7
A	page 96, left-hand column, line 29 - line 66 page 97, left-hand column, line 47 -page 98, right-hand column, line 40; figure 5	2,3,5,9, 11

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

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Date of the actual completion of the international search

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	WO 98 32301 A (ERICSSON TELEFON AB L M) 23 July 1998 (1998-07-23) page 5, line 14 -page 6, line 14 page 11, line 1 -page 14, line 9 page 15, line 1 - line 18	7
A	JAU-SHIUNG HUANG ET AL: "MHTP - A MULTIMEDIA HIGH-SPEED TRANSPORT PROTOCOL" PROCEEDINGS OF THE GLOBAL TELECOMMUNICATIONS CONFERENCE (GLOBECOM), US, NEW YORK, IEEE, vol. -, 6 December 1992 (1992-12-06), pages 1364-1368, XP000390432 ISBN: 0-7803-0608-2 page 1364, paragraph 2 -page 1366, paragraph 3.2	4,6
A	WO 98 19438 A (ERICSSON TELEFON AB L M) 7 May 1998 (1998-05-07) page 4, line 10 -page 6, line 7 page 14, line 16 - line 30	1-11

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

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Patent document cited in search report	Publication date	Patent family member(s)			Publication date
WO 9832301	A 23-07-1998	US	6061346	A	09-05-2000
		AU	5684698	A	07-08-1998
		CN	1250578	T	12-04-2000
		EP	0953265	A	03-11-1999
WO 9819438	A 07-05-1998	SE	510664	C	14-06-1999
		AU	4888897	A	22-05-1998
		BR	9712387	A	31-08-1999
		CN	1235727	A	17-11-1999
		EP	0928535	A	14-07-1999
		SE	9603948	A	30-04-1998